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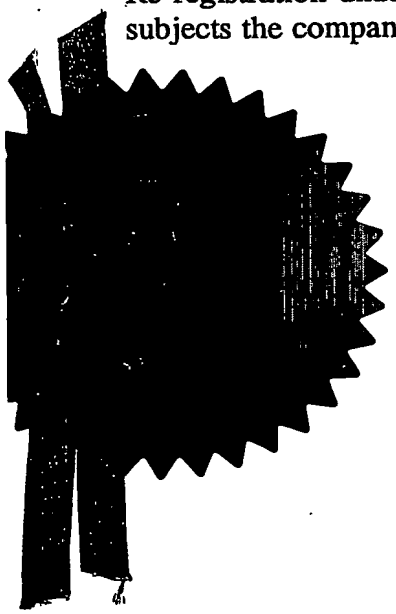

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22NOV02 E765433-3 D02898
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1.	Your reference	C4265(C)/rkk
2.	Patent application number *(The Patent Office will fill in this part)*	21 NOV 2002 0227242.5
3.	Full name, address and postcode of the or of each applicant *(underline all surnames)*	**UNILEVER PLC** **UNILEVER HOUSE, BLACKFRIARS** **LONDON, EC4P 4BQ**
	Patents ADP number *(if you know it)*	**50426956002**
	If the applicant is a corporate body, give the country/state of its incorporation	**UNITED KINGDOM**
4.	Title of the invention	**IMPROVEMENTS RELATING TO FABRIC LAUNDERING**
5.	Name of your agent *(if you have one)*	**ELLIOTT Peter William**
	"Address for Service" in the United Kingdom to which all correspondence should be sent *(including the postcode)*	**PATENT DEPARTMENT, UNILEVER PLC** **COLWORTH HOUSE, SHARNBROOK** **BEDFORD, MK44 1LQ**
	Patents ADP number *(if you know it)*	07171622001

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8.	Is a statement of inventorship and of right to grant of a patent required in support of this request? *(Answer 'Yes' if:* *a) any applicant named in part 3 is not an inventor, or* *b) there is an inventor who is not named as an applicant, or* *c) any named applicant is a corporate body.* *See note (d))*	**YES**

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Request for preliminary examination and search *(Patents Form 9/77)*	1
Request for substantive examination *(Patents Form 10/77)*	
Any other documents *(please specify)*	

11. I/We request the grant of a patent on the basis of this application.

Signature(s) Leone Watkinson Date: **21/11/02**

Leone WATKINSON, Authorised Signatory

12. Name and daytime telephone number of person to contact in the United Kingdom — **Ravinder K Kundra, Tel 01234 22 2439**

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IMPROVEMENTS RELATING TO FABRIC LAUNDERING

Technical Field

The present invention relates to improved products and processes for fabric laundering.

Background of the Invention

Hydroxy ethyl cellulose is widely commercially available and is well known as a viscosity modifier in a range of surfactant-containing products as well as in paints and other coatings. It is generally produced by the treatment of cellulose with ethylene oxide to give materials with a specified degree of substitution of the hydroxyl groups of the glucose rings with hydroxy ethyl groups. Analogous materials are known which comprise other short alkyl chains (typically C2-4). Other known materials are hydroxy-alkyl derivatives of other beta 1-4 linked poly-saccharrides.

In order to bring about viscosity changes cellulose ethers are generally required to be present at levels of 1-2%wt on liquor, depending on the molecular weight of the polymer. It is known that bulk viscosity increases in a wash liquor can have beneficial effects on fabrics being laundered, as the increase in viscosity reduces certain fabric-fabric interactions which can cause degradation of the fabrics through such mechanisms as abrasion etc.

WO 99/14295 discloses compositions and methods for fabric treatment to impart appearance and integrity benefits, which utilise cellulosic based polymers having ether substituents on the hydroxyl groups of the glucose rings. The substituents take the form -OR where R is one of:

a) -H and -C1-4 alkyl (i.e. an unmodified hydroxyl or an alkyl ether,

b) $-(CH2)_y-CO-OZ$ (i.e. a carboxyl terminated alkyl ether which can be esterified with another group, or

c) $-[Et.R_20]_n-R_H$. In these compositions x is 0-5 and R_H comprises an alkyl chain, so this comprises either a poly-oxyethylene linker to the alkyl chain or simply the alkyl chain connected to the backbone via an ether linkage.

The benefits disclosed in WO 99/14295 are believed to be obtained by the active component, i.e. the ether, associating itself with the fibres of the fabric to reduce or minimise the tendency for the fabric to deteriorate. It is known that ester materials such as cellulose mono-acetate will also associate with cellulose. It is believed that in many cases the association with or 'recognition' of cellulose by another beta 1-4 chemical species involves an interaction between the backbones of the cellulose and the beta 1-4 polymer.

None of the formulations mentioned above with reference to WO 99/14295 comprise a simple hydroxy alkyl ether of the saccharide backbone. It has been thought that these materials would not associate with cellulose because the hydroxy alkyl groups would interfere with the backbone-backbone interaction that is believed to be necessary for cellulose recognition.

Brief Description of the Invention

We have now determined that relatively low levels of hydroxy alkyl ether in the wash liquor, which are themselves insufficient to give a marked viscosity increase are however, capable of giving benefits in terms of reduced fabric abrasion and reduced dye pick-up.

Accordingly, the present invention provides a method of treating fabrics which comprises contacting the fabrics with a wash liquor comprising 0.01% to 0.4% on weight of fabric of a hydroxy C2-C4 alkyl derivative of a beta 1-4 polysaccharide.

In a further aspect the present invention provides a composition for use in the method described above, said composition comprising a textile compatible carrier and a sufficient quantity of a hydroxy C2-C4 alkyl derivative of a beta 1-4 polysaccharide to give an in use concentration of 0.01% to 0.4% on weight of fabric of said polysaccharide in the wash liquor when said composition is used in accordance with instructions supplied with it.

Preferably the beta 1-4 polysaccharide is cellulose. Cellulose derivatives are widely available. It is believed that among the beta 1-4 polysaccharides cellulose itself shows excellent cellulose self recognition.

Preferably the hydroxy C2-C4 alkyl derivative is a hydroxy ethyl derivative.

Preferably the degree of substitution is 1-3, more preferably 1.75-2.25.

Preferably the molecular weight of the beta 1-4 polysaccharide is 300,000 to 1,500,000 Dalton.

Suitable hydroxy C2 alkyl derivatives of cellulose are available in the marketplace from Dow under the trade name "Cellosize".

The level of material can be between 0.25 and 10% on final product. Preferably, the level of material is 1-4%wt on final product.

Detailed Description of the Invention

Carriers and Product Form:

The polymers of the invention will generally be used in conjunction with a textile compatible carrier.

In the context of the present invention the term "textile compatible carrier" includes a component which can assist in the interaction of the polymer with the textile. The carrier can also provide benefits in addition to those provided by the first component e.g. softening, cleaning etc. The carrier may be a detergent-active compound or a textile softener or conditioning compound or other suitable detergent or textile treatment agent.

In a washing process, as part of a conventional textile washing product, such as a detergent composition, the textile-compatible carrier will typically be a detergent-active compound. Whereas, if the textile treatment product is a rinse conditioner, the textile-compatible carrier will be a textile softening and/or conditioning compound. These are described in further detail below.

The polymer is preferably used to treat the textile in the wash cycle of a laundering process.

The composition of the invention may be in the form of a liquid, solid (e.g. powder or tablet), a gel or paste, spray, stick or a foam or mousse. Examples include a soaking product, a rinse treatment (e.g. conditioner or finisher) or a main-wash product.

Liquid compositions may also include an agent which produces a pearlescent appearance, e.g. an organic pearlising compound such as ethylene glycol distearate, or inorganic pearlising pigments such as microfine mica or titanium

dioxide (TiO_2) coated mica. Liquid compositions may be in the form of emulsions or emulsion precursors thereof.

Detergent Active Compounds:

If the composition of the present invention is itself in the form of a detergent composition, the textile-compatible carrier may be chosen from soap and non-soap anionic, cationic, nonionic, amphoteric and zwitterionic detergent active compounds, and mixtures thereof.

Many suitable detergent active compounds are available and are fully described in the literature, for example, in "Surface-Active Agents and Detergents", Volumes I and II, by Schwartz, Perry and Berch.

The preferred textile-compatible carriers that can be used are soaps and synthetic non-soap anionic and nonionic compounds.

Anionic surfactants are well-known to those skilled in the art. Examples include alkylbenzene sulphonates, particularly linear alkylbenzene sulphonates having an alkyl chain length of C_8-C_{15}; primary and secondary alkylsulphates, particularly C_8-C_{15} primary alkyl sulphates; alkyl ether sulphates; olefin sulphonates; alkyl xylene sulphonates; dialkyl sulphosuccinates; and fatty acid ester sulphonates. Sodium salts are generally preferred.

Nonionic surfactants that may be used include the primary and secondary alcohol ethoxylates, especially the C_8-C_{20} aliphatic alcohols ethoxylated with an average of from 1 to 20 moles of ethylene oxide per mole of alcohol, and more especially the C_{10}-C_{15} primary and secondary aliphatic alcohols ethoxylated with an average of from 1 to 10 moles of ethylene oxide per mole of alcohol. Non-ethoxylated nonionic surfactants include alkylpolyglycosides, glycerol monoethers, and polyhydroxyamides (glucamide).

Cationic surfactants that may be used include quaternary ammonium salts of the general formula $R_1R_2R_3R_4N^+ X^-$ wherein the R groups are independently hydrocarbyl chains of C_1-C_{22} length, typically alkyl, hydroxyalkyl or ethoxylated alkyl groups, and X is a solubilising cation (for example, compounds in which R_1 is a C_8-C_{22} alkyl group, preferably a C_8-C_{10} or C_{12}-C_{14} alkyl group, R_2 is a methyl group, and R_3 and R_4, which may be the same or different, are methyl or hydroxyethyl groups); and cationic esters (for example, choline esters) and pyridinium salts.

The total quantity of detergent surfactant in the composition is suitably from 0.1 to 60 wt% e.g. 0.5-55 wt%, such as 5-50wt%.

Preferably, the quantity of anionic surfactant (when present) is in the range of from 1 to 50% by weight of the total composition. More preferably, the quantity of anionic

surfactant is in the range of from 3 to 35% by weight, e.g. 5 to 30% by weight.

Preferably, the quantity of nonionic surfactant when present is in the range of from 2 to 25% by weight, more preferably from 5 to 20% by weight.

Amphoteric surfactants may also be used, for example amine oxides or betaines.

Builders:

The compositions may suitably contain from 10 to 70%, preferably from 15 to 70% by weight, of detergency builder. Preferably, the quantity of builder is in the range of from 15 to 50% by weight.

The detergent composition may contain as builder a crystalline aluminosilicate, preferably an alkali metal aluminosilicate, more preferably a sodium aluminosilicate.

The aluminosilicate may generally be incorporated in amounts of from 10 to 70% by weight (anhydrous basis), preferably from 25 to 50%. Aluminosilicates are materials having the general formula:

$$0.8\text{-}1.5\ M_2O.\ \ Al_2O_3.\ \ 0.8\text{-}6\ \ SiO_2$$

where M is a monovalent cation, preferably sodium. These materials contain some bound water and are required to have

a calcium ion exchange capacity of at least 50 mg CaO/g. The preferred sodium aluminosilicates contain 1.5-3.5 SiO_2 units in the formula above. They can be prepared readily by reaction between sodium silicate and sodium aluminate, as amply described in the literature.

Alternatively, or additionally to the aluminosilicate builders, phosphate builders may be used.

Textile Softening and/or Conditioner Compounds:

If the composition of the present invention is in the form of a textile conditioner composition, the textile-compatible carrier will be a textile softening and/or conditioning compound (hereinafter referred to as "textile softening compound"), which may be a cationic or nonionic compound.

The softening and/or conditioning compounds may be water insoluble quaternary ammonium compounds. The compounds may be present in amounts of up to 8% by weight (based on the total amount of the composition) in which case the compositions are considered dilute, or at levels from 8% to about 50% by weight, in which case the compositions are considered concentrates.

Compositions suitable for delivery during the rinse cycle may also be delivered to the textile in the tumble dryer if used in a suitable form. Thus, another product form is a composition (for example, a paste) suitable for coating onto, and delivery from, a substrate e.g. a flexible sheet

or sponge or a suitable dispenser during a tumble dryer cycle.

Suitable cationic textile softening compounds are substantially water-insoluble quaternary ammonium materials comprising a single alkyl or alkenyl long chain having an average chain length greater than or equal to C_{20}. More preferably, softening compounds comprise a polar head group and two alkyl or alkenyl chains having an average chain length greater than or equal to C_{14}. Preferably the textile softening compounds have two, long-chain, alkyl or alkenyl chains each having an average chain length greater than or equal to C_{16}.

Most preferably at least 50% of the long chain alkyl or alkenyl groups have a chain length of C_{18} or above. It is preferred if the long chain alkyl or alkenyl groups of the textile softening compound are predominantly linear.

Quaternary ammonium compounds having two long-chain aliphatic groups, for example, distearyldimethyl ammonium chloride and di(hardened tallow alkyl) dimethyl ammonium chloride, are widely used in commercially available rinse conditioner compositions. Other examples of these cationic compounds are to be found in "Surface-Active Agents and Detergents", Volumes I and II, by Schwartz, Perry and Berch. Any of the conventional types of such compounds may be used in the compositions of the present invention.

The textile softening compounds are preferably compounds that provide excellent softening, and are characterised by a chain melting Lβ to Lα transition temperature greater than 25^0C, preferably greater than 35^0C, most preferably greater than 45^0C. This Lβ to Lα transition can be measured by DSC as defined in "Handbook of Lipid Bilayers", D Marsh, CRC Press, Boca Raton, Florida, 1990 (pages 137 and 337).

Substantially water-insoluble textile softening compounds are defined as textile softening compounds having a solubility of less than 1×10^{-3} wt % in demineralised water at 20^oC. Preferably the textile softening compounds have a solubility of less than 1×10^{-4} wt%, more preferably less than 1×10^{-8} to 1×10^{-6} wt%.

Especially preferred are cationic textile softening compounds that are water-insoluble quaternary ammonium materials having two C_{12-22} alkyl or alkenyl groups connected to the molecule via at least one ester link, preferably two ester links. Di(tallowoxyloxyethyl) dimethyl ammonium chloride and/or its hardened tallow analogue are especially preferred of the compounds of this type. Other preferred materials include 1,2-bis(hardened tallowoyloxy)-3-trimethylammonium propane chloride. Their methods of preparation are, for example, described in US 4 137 180 (Lever Brothers Co). Preferably these materials comprise small amounts of the corresponding monoester as described in

US 4 137 180, for example, 1-hardened tallowoyloxy-2-hydroxy-3-trimethylammonium propane chloride.

Other useful cationic softening agents are alkyl pyridinium salts and substituted imidazoline species. Also useful are primary, secondary and tertiary amines and the condensation products of fatty acids with alkylpolyamines.

The compositions may alternatively or additionally contain water-soluble cationic textile softeners, as described in GB 2 039 556B (Unilever).

The compositions may comprise a cationic textile softening compound and an oil, for example as disclosed in EP-A-0829531.

The compositions may alternatively or additionally contain nonionic textile softening agents such as lanolin and derivatives thereof.

Lecithins are also suitable softening compounds.

Nonionic softeners include Lβ phase forming sugar esters (as described in M Hato et al Langmuir 12, 1659, 1666, (1996)) and related materials such as glycerol monostearate or sorbitan esters. Often these materials are used in conjunction with cationic materials to assist deposition (see, for example, GB 2 202 244). Silicones are used in a similar way as a co-softener with a cationic softener in rinse treatments (see, for example, GB 1 549 180).

The compositions may also suitably contain a nonionic stabilising agent. Suitable nonionic stabilising agents are linear C_8 to C_{22} alcohols alkoxylated with 10 to 20 moles of alkylene oxide, C_{10} to C_{20} alcohols, or mixtures thereof.

Advantageously the nonionic stabilising agent is a linear C_8 to C_{22} alcohol alkoxylated with 10 to 20 moles of alkylene oxide. Preferably, the level of nonionic stabiliser is within the range from 0.1 to 10% by weight, more preferably from 0.5 to 5% by weight, most preferably from 1 to 4% by weight. The mole ratio of the quaternary ammonium compound and/or other cationic softening agent to the nonionic stabilising agent is suitably within the range from 40:1 to about 1:1, preferably within the range from 18:1 to about 3:1.

The composition can also contain fatty acids, for example C_8 to C_{24} alkyl or alkenyl monocarboxylic acids or polymers thereof. Preferably saturated fatty acids are used, in particular, hardened tallow C_{16} to C_{18} fatty acids. Preferably the fatty acid is non-saponified, more preferably the fatty acid is free, for example oleic acid, lauric acid or tallow fatty acid. The level of fatty acid material is preferably more than 0.1% by weight, more preferably more than 0.2% by weight. Concentrated compositions may comprise from 0.5 to 20% by weight of fatty acid, more preferably 1% to 10% by weight. The weight ratio of quaternary ammonium material or other cationic softening agent to fatty acid material is preferably from 10:1 to 1:10.

Other Components:

Compositions according to the invention may comprise soil release polymers such as block copolymers of polyethylene oxide and terephthalate.

Other optional ingredients include emulsifiers, electrolytes (for example, sodium chloride or calcium chloride) preferably in the range from 0.01 to 5% by weight, pH buffering agents, and perfumes (preferably from 0.1 to 5% by weight).

Further optional ingredients include non-aqueous solvents, perfume carriers, fluorescers, colourants, hydrotropes, antifoaming agents, enzymes, optical brightening agents, and opacifiers.

Suitable bleaches include peroxygen bleaches. Inorganic peroxygen bleaching agents, such as perborates and percarbonates are preferably combined with bleach activators. Where inorganic peroxygen bleaching agents are present the nonanoyloxybenzene sulphonate (NOBS) and tetra-acetyl ethylene diamine (TAED) activators are typical and preferred.

Suitable enzymes include proteases, amylases, lipases, cellulases, peroxidases and mixtures thereof.

In addition, compositions may comprise one or more of anti-shrinking agents, anti-wrinkle agents, anti-spotting agents,

germicides, fungicides, anti-oxidants, UV absorbers (sunscreens), heavy metal sequestrants, chlorine scavengers, dye fixatives, anti-corrosion agents, drape imparting agents, antistatic agents and ironing aids. The lists of optional components are not intended to be exhaustive.

In order that the invention may be further and better understood it will be described below with reference to several non-limiting examples.

Examples

Example 1:

This example shows protection of new coloured fabrics from fabric abrasion during washing in a Quickwash™ with hydroxy ethyl cellulose in a detergent powder composition

White woven cotton sheeting printed with a red and black "Manchester United" design was obtained from Abakhan Fabrics, Coast Road, Mostyn, Flintshire, CH8 9DX, UK, and cut into pieces measuring 20 x 20 cm and each edge overlocked to prevent fraying.

A Datacolor™ Spectraflash SF600+ reflectance spectrometer was calibrated using white tile and black trap standards prior to measurement of the reflectance over the wavelength range 400-720nm at specific points on each fabric piece.

The fabrics were then washed in a Quickwash™ apparatus using the following protocol.

Apparatus	Raitech™ Quickwash™ Plus.
Powder	97 parts by weight of Persil Original Non-Bio as sold in the UK during the summer of 2002 and 3 parts by weight hydroxy ethyl cellulose (for example Cellosize™ QP100MH). 16 g of this powder were dosed into the water with 4g of antifoam granules
Fabrics	One coloured fabric piece was place in each of the five compartments of the Quickwash™.
Wash Conditions	The Quickwash programme was executed as follows: 1. 30 second drain 2. Fill with 3 litres of 15°FH water at 40°C 3. Machine paused and powder added 4. Programme resumed 5. Agitated for 15 minutes at 40°C 6. Drain for 30 seconds 7. Fill with 3 litres of 15°FH water at 40°C.

8. Agitate for 5 minutes (Rinse)
9. Drain for 30 seconds
10. Dry at 4.0 bar for 1 minute
11. Dry at 3.5 bar for 1 minute
12. Dry at 3.0 bar for 2 minutes
13. Cool-down

These steps were repeated five times with each of a range of hydroxy-ethyl cellulose (HEC) materials (all Cellosize™ ex DOW), and for a control sample of Persil Non-Bio that did not contain any hydroxy-ethyl cellulose.

After the completion of the five washing and drying cycles the reflectance of each fabric was recorded at the same points using a calibrated Hunterlab™ Reflectance spectrometer and the delta E and delta L values recorded.

Table 1 below shows results for these Quickwash assays. It can be seen that in all cases the addition of HEC at relatively low levels reduced the level of fading.

Table 1

Example	'Cellosize' Hydroxy Ethyl Cellulose	Delta L
Control	None	10.09
1a	EP09	8.78
1b	QP40	8.81
1c	QP300	8.02
1d	QP4400H	8.53
1e	QP10000H	9.04
1f	QP15000H	9.58
1g	QP30000H	8.23
1h	QP52000H	7.94
1I	QP100MH	8.08

Example 2:

Experiments were performed in a Miele Novotronic WT945 front loading washing machine with 100g of fabric washing powder made up from (A) 97 parts by weight of Persil Original Non-Bio as sold in the UK during the summer of 2002 and 3 parts by weight of hydroxy ethyl cellulose (Cellosize™ QP100MH), and (B) a Persil Non-Bio control that did not contain any hydroxyethyl cellulose.

The load was not dried between washes, but the washing operation was repeated for ten cycles. The load composition was as follows:

One pair of black jeans:

- Made from 100% cotton, George™ brand bought from ASDA™ Menswear section, Size 34 inch waist and 29 inch leg.

One pair dark blue shorts:

- Made from 100% cotton, bought from Matalan Ladieswear section, size 14.

One blue cotton/polyester shirt:

- Made from 60% cotton and 40% polyester George™ brand bought from ASDA™ Menswear section, size 16 inch collar

One black cotton/polyester top:

- Made from 60% cotton and 40% polyester bought from Matalan Ladieswear section, size medium

One dark blue T-shirt:

- Made from 100% cotton George™ brand bought from ASDA™ Menswear section, size medium .

Five 40 x 40cm swatches of various printed cotton pieces were also included:

- One piece of a low quality red and black print
- Two pieces of a 4-colour print on woven cotton: One with normal level of print binder and one with reduced level.
- Two pieces of 4-colour print on knitted cotton: One with normal level of print binder and one with reduced level.

Results are shown in Table 2 below. In all cases, the level of abrasion is less with HEC (in 'treated' column) as indicated by lower Cielab Standard delta E results (obtained as described in Example 1) that those for samples washed in Persil™ (in 'Control' column)

Table 2

Example	Cloth Type	Control	Treated
2a	Low Binder, Woven, Black	4.79	2.37
2b	Low Binder, Woven, Blue	3.68	1.62
2c	Low Binder, Woven, Green	5.61	3.10
2d	Low Binder, Woven, Red	8.25	4.46
2e	Normal Binder, Woven, Black	2.13	1.14
2f	Normal Binder, Woven, Blue	2.03	1.14
2g	Normal Binder, Woven, Green	3.57	2.87
2h	Normal Binder, Woven, Red	7.21	5.69
2I	Low Binder, Knitted, Black	8.95	7.10
2j	Low Binder, Knitted, Blue	8.53	6.74
2k	Low Binder, Knitted, Green	9.79	8.39
2l	Low Binder, Knitted, Red	13.19	11.38
2m	Normal Binder, Knitted, Black	3.94	3.00
2n	Normal Binder, Knitted, Blue	2.66	1.80
2o	Normal Binder, Knitted, Green	3.69	2.92
2p	Normal Binder, Knitted, Red	8.36	7.24
2q	Red/Black Print (Black stripe)	11.64	10.12
2r	Red/Black Print (Red Stripe)	16.48	15.22

The garments were also paneled and in all cases, those washed in Persil™ + HEC were judged to be less abraded that the Persil control, especially around seams and pockets.

Example 3:

Dye transfer experiments were performed using the 97/3 mix of example 1 in a Tergotometer at a product dosage of 5g/L, a liquor cloth ratio of 40:1, a temperature of 40C, using 20 min wash and 2x5min rinse. 4 white monitors were used together with 4 dyed clothes (each 10cm square). Three dyes were used: Direct Red 80, Direct Green 26 and Direct Black 22, all unfixed

'Cielab'™ Standard delta E measurements were obtained (as described in Example 1) and are given in table 3 below. It can be seen that lower levels of dye were picked-up in the washes in which HEC was present as compared with the control (Persil ™).

White light reflectance difference measurements at the specified wavelengths are given in table 4. These show that, in general, significantly less reduction in reflectance was obtained with the compositions of the invention, containing a low level of HEC, than with the control (Persil ™).

Table 3

Dye Pickup Example	Red	Green	Black
3a (Control)	34.5	25.7	33.8
3b (example)	33.5	18.0	28.1

Table 4

Reflectance Loss Example	Red (540nm)	Green (620nm)	Black (610nm)
4a (Control)	50.67	53.12	62.16
4b (example)	51.49	40.16	55.14

CLAIMS

1. A method of treating fabrics which comprises contacting the fabrics with a wash liquor comprising 0.01% to 0.4% on weight of fabric of a hydroxy C2-C4 alkyl derivative of a beta 1-4 polysaccharide.

2. A composition for use in the method of claim 1, said composition comprising a textile compatible carrier and a sufficient quantity of a hydroxy C2-C4 alkyl derivative of a beta 1-4 polysaccharide to give an in use concentration of 0.01% to 0.4% on weight of fabric of said polysaccharide in the wash liquor when said composition is used in accordance with instructions supplied with it.

3. A composition according to claim 2, wherein the beta 1-4 linked polysaccharide is cellulose.

4. A composition according to claim 2, wherein the hydroxy C2-C4 alkyl derivative is a hydroxy ethyl derivative.

5. A composition according to claim 2, wherein the degree of substitution of the beta 1-4 polysaccharide is 1-3.

6. A composition according to claim 2, wherein the molecular weight of the beta 1-4 polysaccharide is 300,000 to 1,500,000 Dalton.

7. A composition according to claim 2, further comprising a surfactant.